

CHEMIST I/II

Purpose:

To actively support and uphold the City's stated mission and values. To perform a wide variety of professional analytical and technical duties involved in the analyses of the City's water quality including raw and treated water and/or raw sewage and industrial waste; and to ensure proper compliance with Federal, State and local requirements.

Supervision Received and Exercised:

Chemist I

Receives general supervision from the Laboratory Administrator of from other supervisory or management staff.

Chemist II

Receives direction from the Laboratory Administrator or from other supervisory or management staff.

Distinguishing Characteristics:

Chemist I

This is the entry level class in the Chemist series. This class is distinguished from the Chemist II by the performance of the more routine tasks and duties assigned to positions within the series. Since this class is typically used as a training class, employees may have only limited or no directly related work experience.

Chemist II

This is the full journey level class within the Chemist series. Employees within this class are distinguished from the Chemist I by the performance of the full range of duties as assigned including the most difficult water analysis and the development of testing procedures. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating

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procedures and policies of the work unit. Positions in this class are flexibly staffed and are normally filled by advancement form the I level, or when filled from the outside requires previous work experience.

Essential Functions:

Duties may include, but are not limited to, the following:

- Perform a variety of chemical, biochemical and bacteriological tests on samples taken from water main, water plant, canal, and residential systems.
- Perform trace metal analysis in potable water, wastewater and industrial effluent by AA flame, furnace and ICP; perform associated quality control checks to ensure the accuracy of analytical results; maintain records of analytical results.
- Calibrate, maintain and monitor various instruments to ensure standardized chemical solutions and filtrants; document accuracy of analytical data.
- Operate a variety of laboratory equipment including spectrophotometer, pH meters, specific ion equipment, gas chromatographs, atomic absorption, balances, furnaces, autoclaves, titrator, incubators, calculators, and computers.
- Prepare solutions, reagents and standards for various chemical analysis; develop complex testing procedures.
- Calibrate, modify and monitor gas chromatograph including preparing samples for analysis; calibrate various instruments and meters and perform preventive maintenance instrument checks.
- Develop and implement taste and odor profile analysis.
- Monitor taste and odor component concentration in the canals and treatment plant; prepare water, wastewater and industrial effluent samples for analysis using various sample digestion techniques.
- Investigate water customer complaints making necessary analysis and taking corrective action when required.
- Maintain, clean, and care for laboratory equipment and material.
- Prepare and maintain water quality control reports to maintain State and Federal certification; develop new methods to meet ongoing federal regulations; fine tune analytical methods to detect lower levels of particulate substances.

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• Provide technical assistance to water treatment Plant Operators and plant

maintenance staff.

Prepare and generate reports on water quality related data; represent the City

at water agency meetings, manufacturer's conferences and at other

professional meetings and organizations.

Perform related duties as assigned.

Minimum Qualifications:

Experience:

Chemist I

One year of experience in public health, chemical or bacteriological analyses is

desirable.

Chemist II

Two years of increasingly responsible experience in public health, chemical or

bacteriological analyses comparable to that of a Chemist I in the City of Tempe.

Education:

Chemist I

Equivalent to a Bachelor's degree from an accredited college or university with major course work in chemistry, bacteriology, biology or directly related to the

core functions of this position.

Chemist II

Equivalent to a Bachelor's degree from an accredited college or university with major course work in chemistry, bacteriology, biology or a degree related to the

core functions of this position.

Licenses/Certifications:

None

Examples of Physical and/or Mental Activities:

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(Pending)

Competencies:

(Pending)

Job Code: 213/262

Status for both: Exempt / Classified